

Amendments to the Specification:

Please make the following amendments to the specification (material to be inserted in replacement paragraphs or sections is in **bold and underline**, and material to be deleted is in ~~strikeout~~ or (if the deletion is of five or fewer consecutive characters or would be difficult to see) in double brackets [[]]).

Please replace the paragraph beginning at page 2, line 27, with the following rewritten paragraph:

FIG. 2 represents a typical electrocardial waveform showing various electrocardial triggering events as well as intervals of relative inactivity. In accordance with conventional notations, a P wave (shown as P1 in FIG. 2) is the first event of the sinus rhythm, indicating atrial depolarization. The P wave is followed by a short interval of relative inactivity, followed by the onset of the QRS complex (shown as Q1, R1, and S1 in FIG. 2), during which the ventricles are depolarized. After the QRS complex, a second interval of relative inactivity occurs prior to the onset of the T wave (shown as T1 in FIG. 2), during which the ventricles are repolarized. At the conclusion of the T wave (shown as T1 in FIG. 2), a third interval of relative inactivity, the TP [[PT]] interval, occurs prior to the onset of the P wave of a second and subsequent electrocardial waveform (shown as P2, Q2, R2, S2, and T2 in FIG. 2). In FIG. 2, during each interval of relative inactivity, the amplitude of the electrocardial waveform is shown as returning to a reference voltage value. This reference voltage value is generally contemplated as being zero volts (ground).

Page 2 - AMENDMENT
Serial No. 10/758,813
HP Docket No. 200315907-1
KH Docket No. HPCC 3E7

Please replace the paragraph beginning at page 4, line 22, with the following rewritten paragraph:

The signal from electrode input 45 is conveyed to event detector 70, which detects the peak of one or more of the P wave, the QRS complex, and the T wave of the electrocardial waveform. In the embodiment of FIG. 4, when event detector 70 detects the peak of the QRS complex of the electrocardial waveform, timing device 80 is placed in a waiting state until the electrocardial waveform can be expected to enter an interval of relative inactivity. For a sinus rhythm of 1 heartbeat per second (for example), timing device 80 waits approximately 0.6 or 0.7 seconds until the onset of interval TP [[PT]]. At the onset of sample and hold interval TP [[PT]], sample and hold device 85 samples the value of the input electrocardial waveform. The sampled value of the waveform is then held at the output of sample and hold device 85 and conveyed to the inverting input of amplifier. The voltage sampled during the expected period of relative inactivity can then be subtracted from electrode input 45 according to the well-known subtractive transfer function of the summing amplifier of FIG. 4:

$$V_{\text{sub}}.\text{Output} 115 = R_2/R_1(V_{\text{sub}}.+ - V_{\text{sub}}.-)$$

Page 3 - AMENDMENT
Serial No. 10/758,813
HP Docket No. 200315907-1
KH Docket No. HPCC 3E7

Please replace the paragraph beginning at page 6, line 27, with the following rewritten paragraph:

The use of memory 130 and processor 140 allow the incoming waveform to be sampled more than once during a given period of relative inactivity. Thus, for the waveform of FIG. 3B, the incoming waveform may be sampled more than once during the TP [[PT]] interval to determine the rate of change in the voltage of the waveform. These additional samples, as well as the rate of change in the voltage during the sampling interval, may be used to better estimate (such as by averaging or extrapolating) the reference voltage generated by processor 140 and presented to the inverting input of amplifier 95.

Page 4 - AMENDMENT
Serial No. 10/758,813
HP Docket No. 200315907-1
KH Docket No. HPCC 3E7